

REMARKS

Claims 1-17 are pending in this application. Claims 1 and 9 are independent claims.

By this amendment, claims 1 and 2 are amended.

Reconsideration in view of the above amendments and following remarks is respectfully solicited.

Allowable Subject Matter

Applicant gratefully acknowledges the Examiner's indication of allowable subject matter in claims 3-17 over the art of record. The Office Action also indicates that claims 3-8 are objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, applicant respectfully submits that all of claims 1-17 are allowable, for at least the reasons set forth below.

The Claims Define Patentable Subject Matter

The Office Action makes the following rejection:

Claims 1 and 2 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,044,519 to Hendrix (hereafter Hendrix).

This rejection is respectfully traversed.

Applicant respectfully submits that the claimed invention is distinguishable from the cited art, Hendrix, for at least the following reasons:

For example, Applicant respectfully submits that a closer look into the load control device (motor control circuit 21) of Hendrix merely reveals that its power control portion is basically the same as the conventional circuit shown in Figure 10 or Figure 12 of the present application.

To be specific, power being supplied through a plug 9, a motor M1, a series circuit R1 and C1, a gated bi-directional semi-conductor switch Q1, and a diode D1 and a circuit connected thereto of Hendrix merely corresponds to an alternating power supply 4, a load 3, a snubber circuit 2, a thyristor 121, and a controller 122, respectively, shown in the conventional Fig. 12 in the present application.

Furthermore, in applicant's Fig. 12, if a power on/off switch (equivalent to a switch 23 of Hendrix) is inserted between the load 3 and the alternating power supply 4, the conventional circuit shown in Figure 12 will match the power control circuit portion of Hendrix. Therefore, in essence the circuit of Hendrix still involves the problems that are to be solved by the present invention.

For example, the present invention is aimed at solving the problems that are clearly unsolved by the conventional art (Figure 10, Figure 12, and Hendrix) as described in paragraph 0014 of the present application. Applicant respectfully submits that Hendrix fails to disclose key technical features of the present invention that assist in solving such problems.

For example, an aspect of the present invention is that the invention solves the problem associated with malfunctions caused by small amount of current flowing through a snubber circuit when a power control element is in an OFF state by suppressing the current flowing through the snubber circuit to a value smaller than a minimum operating current of the load during a period when the power control element is turned off and when a power control of the load is in an operation state with the alternating power supply being applied thereto.

Furthermore, in Applicant's claim 2, the suppressing means includes a switch connected in series to the resistor and the capacitor both of which constitute the snubber circuit as claimed in claim 1. In other words, a series circuit comprising a resistor, a capacitor, and a switch (suppressing means) is connected in parallel to the power control element. Hendrix fails to disclose such a feature.

For example, in the present invention it is possible to make current flowing through the load (3), via the snubber circuit (2), smaller than a minimum operating current of the load, and

thereby prevent malfunctioning of loads prone to sensitivity due to light load capacity. (see present specification, paragraph [00018]; Fig. 1).

In contrast with the present invention, Hendrix merely discloses that resistor R1 and capacitor C1 form a snubber circuit to protect the switch Q1 from excessive dVdT. In Hendrix, when the gated bi-directional semi-conductor switch Q1 is turned on, the motor M and the vacuum cleaner 1 are turned on. (see Hendrix, col. 5, lines 21-25). When the switch 23 is turned OFF, the vacuum cleaner is turned OFF. (see Hendrix, col. 5, lines 37-38).

However, Hendrix fails to disclose making current flowing through the load M via the snubber circuit smaller than a minimum operating current of the load M. Hendrix merely discloses protecting the switch Q1 from excessive dVdT.

According to MPEP §2131, “a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. Of California*, 814 F.2d 628, 631, 2 USPQ2d 1051 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the ...claims.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913 (Fed. Cir. 1989). The elements must be arranged as required by the claims, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Applicant respectfully submits that the Office Action has failed to establish the required *prima facie* case of anticipation because the cited reference, Hendrix, fails to teach or suggest each and every feature as set forth in the claimed invention.

Additionally, Applicant notes that, in order to anticipate a “means-plus-function” clause as recited in independent claim 1, a reference must disclose a function identical to the recited function. Applicant respectfully submits that the Office Action is merely using portions of the claimed functions and is attempting to find the same function in the cited reference. However, the entire identical function must be disclosed.

Applicant respectfully submits that Hendrix fails to teach or suggest each and every feature as set forth in the claimed invention.

Applicants respectfully submit that independent claim 1 is allowable over Hendrix for at least the reasons noted above.

As for dependent claim 2, this claim is also allowable for at least the reasons set forth above regarding their corresponding independent claim, and/or for the further features claimed therein.

Accordingly, withdrawal of the rejection of claims 1 and 2 under 35 U.S.C. §102(e) is respectfully solicited.

Conclusion


In view of the foregoing, Applicants respectfully submit that the application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact Carolyn T. Baumgardner (Reg. No. 41,345) at (703) 205-8000 **to schedule a Personal Interview.**

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment from or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17; particularly, the extension of time fees.

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Respectfully submitted,

By 

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